

REMARKS

Applicant notes the Examiner's comments with respect to the specification wherein he stated, "The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, 'the list may not be incorporated into the specification but must be submitted in a separate paper.' Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered."

Enclosed with this Amendment is Form 1449 listing the references cited on page 1 line 21.

The Examiner objected to the Drawings as failing to comply with 37 CFR 1.84(p)(4) because reference characters "20" and "30" have both been used to designate the hub section on page 7 of the specification. The Examiner stated that, "A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance." The drawing is correct with respect to reference characters 20 and 30, however, page 7, line 7 has been amended to correctly identify the hub section as 30. Accordingly, the Examiner is

respectfully requested to withdraw his objection to the drawings as failing to comply with 37 CFR 1.84(p)(4).

Further, the Examiner objected to the drawings under 37 CFR 1.83(a). In support of this objection the Examiner stated, "The drawings must show every feature of the invention specified in the claims. Therefore, the recitation of a substantially flat portion disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction in claims 1, 13, 15 must be shown or the feature(s) canceled from the claim(s). The claim invention of the flat portion being arcuate in horizontal direction has not been identified in fig. 2 of the drawings. No new matter should be entered. Applicant is required to submit a proposed drawing correction in reply to this Office Action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application."

Enclosed, herewith is a new Figure 3 with illustrates the substantially flat portion disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction. Accordingly, the Examiner is respectfully requested to withdraw his objection to the drawings under 37 CFR 1.83(a).

Next, the Examiner rejected Claims 3-9 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

To support this rejection the Examiner states, "A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2 recited the range of between about 3.5 inches and at about 7.0 inches which is a broad range, claims 3 recites a range of between about 4.0 inches and at about 5.5 inches which is the

narrower statement of the range/limitation. Similar range within a range problem exists with the recitation of a range of between about 4.0 inches and at about 4.5 inches which is the narrower statement of the range/limitation. Claims 6, 8-9 are rejected as being dependent upon rejected base claim 3."

Claims 2-4 have been amended to delete "at" before the term "about". However, applicant does not understand the Examiner's comment concerning a narrow range or limitation falling within a broad range or limitation in the same claim. The range in claim 2 is between about 3.5 inches and about 7.0 inches. The range in claim 3 is between about 4.0 inches and about 5.5 inches while the range in claim 4 is between about 4.0 inches and about 4.5 inches. Clearly, no limitation in any of these claims further limits a range in the same claim. Accordingly, the Examiner is respectfully requested to withdraw his rejection of claims 3-9 under 35 USC 112, second paragraph.

Now turning to the more substantive issues the examiner rejected Claims 1-6, 10-16 under 35 U.S.C. 103(a) as being unpatentable over Hawthorne et al (US 5,582,307) in view of Kaufhold (US 3,857,495).

To support this rejection he states, "Claims 1,5-6, 12-16 Hawthorn et al. discloses in Figs 1-7 a coupler knuckle casting having an enhanced bearing surface area comprising a tail section (18), a hub section (30) having a pivotable pinhole (16)

formed therein with generally straight cylindrical sidewalls, a front face section (24A) connected to said hub section (30), said front face section including a nose section (22) and a pulling face portion (24) formed inwardly from said nose section which includes an enhance bearing (18A) which is substantially arcuate at the corners in a horizontal direction, and a transition section (12) joining said tail section (18) to said hub section (30), said transition section including a top metal section (68) and a bottom metal section (70) extending toward each other, wherein said nose section (22) includes a generally cylindrical opening (36) formed in an end portion thereof, see column 3, lines 26-34, column 5, lines 10-15.

Hawthorne et al disclose all of the features as listed above but fail to disclose a coupler knuckle having a substantially flat portion disposed substantially in a vertical direction extending for a predetermined distance in a vertical direction in at least a portion of the nose section and the front face portion. The general concept of providing a substantially flat portion disposed substantially in a vertical direction extending for a predetermined distance in a vertical direction in at least a portion of the nose section and the front face portion of a coupler knuckle is well known in the art as illustrated by Kaufhold, see figs. 1-10, abstract section. It would have been obvious to one of ordinary skill in the art at

the time of the invention to modify Hawthorn to include the use of a substantially flat portion disposed substantially in a vertical direction extending for a predetermined distance in a vertical direction in at least a portion of the nose section and the front face portion of a coupler knuckle as taught by Kaufhold in order to prevent formation of an overturning moment force on the coupler knuckle during coupling. Claims 2-4, 10-11 Regarding using a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C as recited in claims 2-4, 10-11, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Hawthorne et al to include the use of a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C in his advantageous system, as knuckle engagement surface design is a common and everyday occurrence throughout the coupler knuckle design art and the specific use of a substantially flat portion extending in the vertical direction in a range between about 3.5 to 7.0 inches, or a range between about 4.0 to 5.5 inches, and an enhanced bearing surface area hardened to at least about 40 Rockwell C would have been an

obvious matter of mechanical expediency depending upon such factors as the loading imposed on the knuckle, the allowable lateral displacement between the coupler, the yield strength of the side knuckle material; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the knuckle which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria."

Applicant must respectfully disagree with the Examiner's interpretation of the teachings of the Kaufhold Patent. In particular, the Examiner's attention is directed to column 3 lines 27-67 and column 4 lines 31-61 which teaches "...flat gathering surface 22. The flat gathering surface 22 is located to lie in the path of movement of a buffing nose on a knuckle of a mating coupler. As shown in FIGS 1 and 2 the flat gathering surface 22 is sloped at an angle γ with the pulling face..."

"...The uppermost point Q of the flat surface 22 is selected so that the moment applied by the resultant force R is capable of turning or gathering the couplers about the respective butt pivots..."

"...The resultant forces R along the length of the surface 22 lie along lines which are disposed on the knuckle side of the axis of the pivot pin and also lie on the guard arm side as the

point of sliding contact progresses toward the opposite end
14..."

"...a second flat gathering surface 26 is provided on the knuckle side of knuckle 12. The second flat surface 26 extends from a radius 27 formed at the Q end of the flat surface 22. A second radius 28 is provided at the other end of the second flat surface 26 and is spaced a maximum distance from the radius 27. The length and location of the flat surface 26 is such as to not materially alter the strength characteristics of the knuckle. When the knuckle 12 is in a closed position in flat surface 26 is located such that the point Q of a mating open knuckle engages the flat surface 26..." As is clear from this description of the cited reference the flat surface is not located on the pulling face and mating nose portion of the knuckle nor from this teaching is there any suggestion that such a flat surface would be beneficial. Accordingly, the examiner is respectfully requested to withdraw his rejection of Claims 1-6, 10-16 under 35 U.S.C. 103(a) as being unpatentable over Hawthorne et al (US 5,582,307) in view of Kaufhold (US 3,857,495).

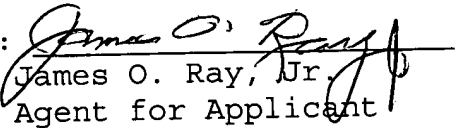
Applicant notes and appreciates the Examiner's indication of allowable subject matter. Specifically, the Examiner stated, "Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent

form including all of the limitations of the base claim and any intervening claims. None of the references of record suggests a coupler knuckle casting having a front face section connected to a hub section, at least a portion of the front face portion and the nose section including an enhanced bearing surface area which includes a substantially flat portion disposed substantially in a vertical direction and which is substantially arcuate in a horizontal direction, said substantially flat portion extending for a predetermined length along said horizontal direction, wherein said predetermined length along said horizontal direction which is substantially arcuate extends over at least a portion of said hub section, said front face section and at least a portion of said nose section in the manner defined in the instant claims 7-9."

In view of the above amendments and remarks it is believed that claims 1-16 are in condition for allowance and such allowance by the Examiner is respectfully requested.

In the event the Examiner has further difficulties with the allowance of the application, he is invited to contact the undersigned attorney by telephone at (412)380-0725 to resolve any remaining questions or issues by interview and/or by Examiner's amendment as to any matter that will expedite the completion of the prosecution of the application.

Respectfully submitted,

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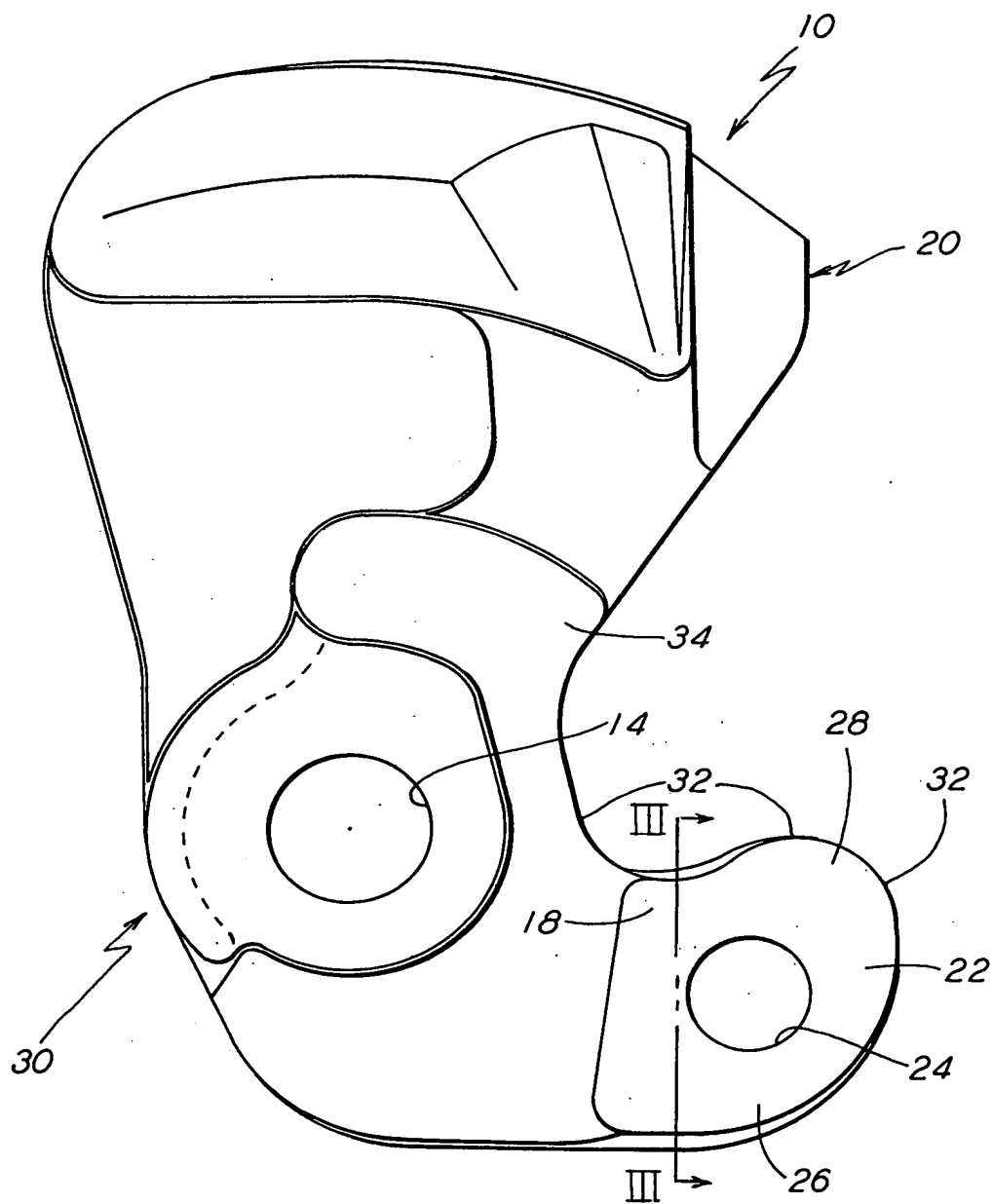


FIG. 1

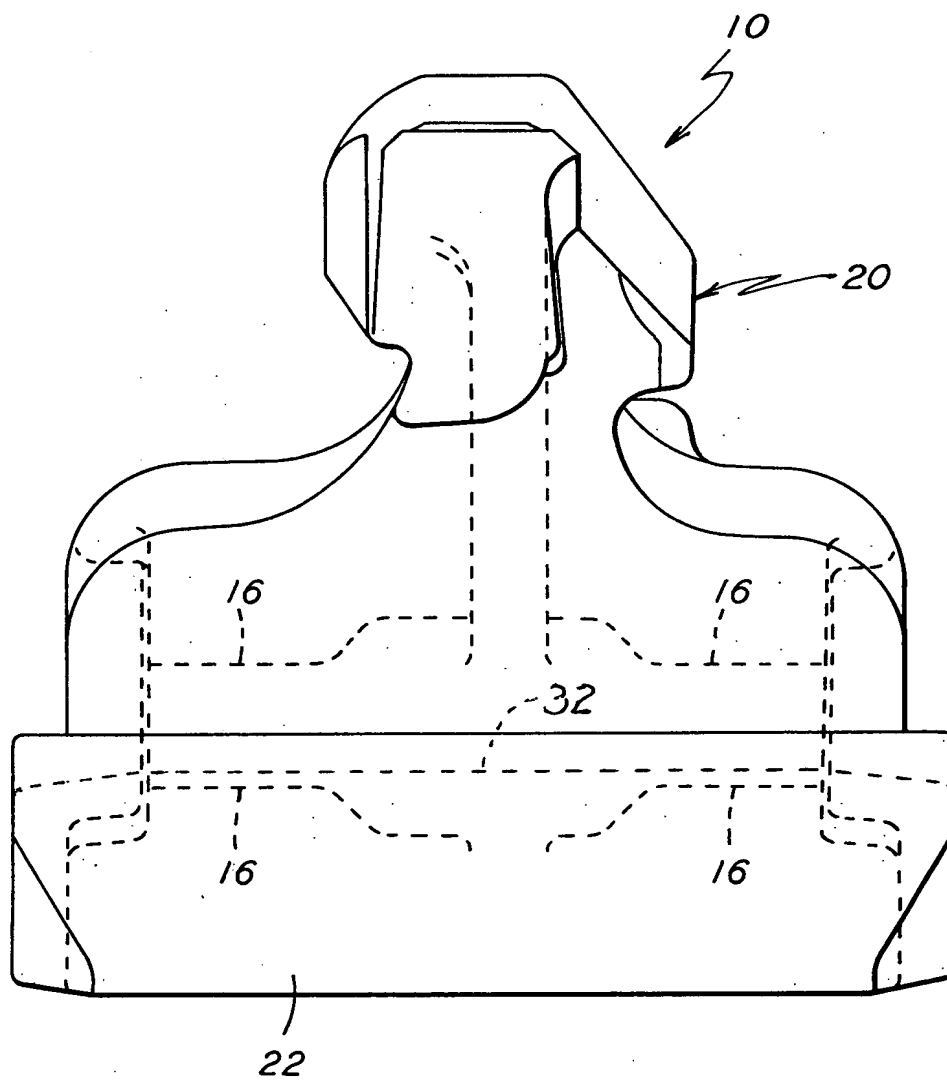


FIG. 2